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WHAT IS CLAIMED IS:

1 1. A pharmaceutical composition comprising an MTb81 antigen or an
2 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex,
3 and an Mo2 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of
4 the tuberculosis complex.

1 2. The composition of claim 1, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 3. The composition of claim 2, wherein the fusion polypeptide has the
2 amino acid sequence of TbF14.

1 4. A pharmaceutical composition comprising a TbRa3 antigen or an
2 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex, a
3 38kD antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
4 tuberculosis complex, a Tb38-1 antigen or an immunogenic fragment thereof from a
5 *Mycobacterium* species of the tuberculosis complex, and a FL TbH4 antigen or an
6 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 5. The composition of claim 4, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 6. The composition of claim 5, wherein the fusion polypeptide has the
2 amino acid sequence of TbF15.

1 7. A pharmaceutical composition comprising an HTCC#1 antigen or an
2 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex,
3 and a TbH9 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of
4 the tuberculosis complex.

1 8. The composition of claim 7, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 9. The composition of claim 7, comprising a full-length HTCC#1 antigen
2 from a *Mycobacterium* species of the tuberculosis complex, and a full-length TbH9 antigen
3 from a *Mycobacterium* species of the tuberculosis complex.

1 10. The composition of claim 9, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 11. The composition of claim 10, wherein the fusion polypeptide has the
2 amino acid sequence of HTCC#1(FL)-TbH9(FL).

1 12. The composition of claim 7, comprising a polypeptide comprising
2 amino acids 184-392 of an HTCC#1 antigen from a *Mycobacterium* species of the
3 tuberculosis complex, a TbH9 antigen or an immunogenic fragment thereof from a
4 *Mycobacterium* species of the tuberculosis complex, and a polypeptide comprising amino
5 acids 1-129 of an HTCC#1 antigen from a *Mycobacterium* species of the tuberculosis
6 complex.

1 13. The composition of claim 12, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 14. The composition of claim 13, wherein the fusion polypeptide has the
2 amino acid sequence of HTCC#1(184-392)/TbH9/HTCC#1(1-129).

1 15. A pharmaceutical composition comprising a TbRa12 antigen or an
2 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex,
3 and an HTCC#1 antigen or an immunogenic fragment thereof from a *Mycobacterium* species
4 of the tuberculosis complex.

1 16. The composition of claim 15, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 17. The composition of claim 16, wherein the fusion polypeptide has the
2 amino acid sequence of TbRa12-HTCC#1.

1 18. A pharmaceutical composition comprising at least two heterologous
2 antigens from a *Mycobacterium* species of the tuberculosis complex or an immunogenic
3 fragment thereof, wherein the antigen or immunogenic fragment thereof is selected from the
4 group consisting of MTb81, Mo2, TbRa3, 38kD, Tb38-1 (MTb11), FL TbH4, HTCC#1
5 (Mtb40), TbH9, MTCC#2 (Mtb41), DPEP, DPPD, TbRa35, TbRa12, MTb59, MTb82, Erd14

6 (Mtb16), FL TbRa35 (Mtb32A), DPV (Mtb8.4), MSL (Mtb9.8), MTI (Mtb9.9A, also known
7 as MTI-A), ESAT-6, α -crystalline, and 85 complex.

1 19. The composition of claim 18, wherein the antigens are covalently
2 linked, thereby forming a fusion polypeptide.

1 20. The composition of claim 1, 4, 7, 15, or 18, wherein the antigens are
2 covalently linked via a chemical linker.

1 21. The composition of claim 20, wherein the chemical linker is an amino
2 acid linker.

1 22. The composition of claim 1, 4, 7, 15, or 18, further comprising at least
2 one additional antigen from a *Mycobacterium* species of the tuberculosis complex, wherein
3 the antigen is selected from the group consisting of MTb81, Mo2, TbRa3, 38kD, Tb38-1
4 (MTb11), FL TbH4, HTCC#1 (Mtb40), TbH9, MTCC#2 (Mtb41), DPEP, DPPD, TbRa35,
5 TbRa12, MTb59, MTb82, Erd14 (Mtb16), FL TbRa35 (Mtb32A), DPV (Mtb8.4), MSL
6 (Mtb9.8), MTI (Mtb9.9A, also known as MTI-A), ESAT-6, α -crystalline, and 85 complex, or
7 an immunogenic fragment thereof.

1 23. The composition of claim 1, 4, 7, 15, or 18, further comprising an
2 adjuvant.

1 24. The composition of claim 23, wherein the adjuvant comprises QS21
2 and MPL.

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) 25. The composition of claim 23, wherein the adjuvant is selected from the
) group consisting of AS2, ENHANZYN, MPL, QS21, CWS, TDM, AGP, CPG, Leif, saponin,
) and saponin mimetics.

1 26. The composition of claim 1, 4, 7, 15, or 18, further comprising BCG.

1 27. The composition of claim 1, 4, 7, 15, or 18, further comprising an NS1
2 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
3 tuberculosis complex.

1 28. The composition of claim 1, 4, 7, 15, or 18, wherein the
2 *Mycobacterium* species is *Mycobacterium tuberculosis*.

DRAFT 3/30/96
PCT/US96/02111

1 29. An expression cassette comprising a nucleic acid encoding an MTb81
2 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
3 tuberculosis complex, and a nucleic acid encoding an Mo2 antigen or an immunogenic
4 fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 30. The expression cassette of claim 29, wherein the nucleic acid encodes
2 a fusion polypeptide comprising an MTb81 antigen or an immunogenic fragment thereof and
3 a nucleic acid encoding an Mo2 antigen or an immunogenic fragment thereof.

1 31. The expression cassette of claim 30, wherein the nucleic acid encodes
2 a fusion polypeptide having the amino acid sequence of TbF14.

1 32. The expression cassette of claim 31, wherein the nucleic acid has the
2 nucleotide sequence of the nucleic acid encoding TbF14.

1 33. An expression cassette comprising a nucleic acid encoding a TbRa3
2 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
3 tuberculosis complex, a nucleic acid encoding a 38kD antigen or an immunogenic fragment
4 thereof from a *Mycobacterium* species of the tuberculosis complex, a nucleic acid encoding a
5 Tb38-1 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
6 tuberculosis complex, and a nucleic acid encoding a FL TbH4 antigen or an immunogenic
7 fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 34. The expression cassette of claim 33, wherein the nucleic acid encodes
2 a fusion polypeptide comprising a TbRa3 antigen or an immunogenic fragment thereof, a
3 38kD antigen or an immunogenic fragment thereof, a Tb38-1 antigen or an immunogenic
4 fragment thereof, and a nucleic acid encoding a FL TbH4 antigen or an immunogenic
5 fragment thereof.

1 35. The expression cassette of claim 34, wherein the nucleic acid encodes
2 a fusion polypeptide having the amino acid sequence of TbF15.

1 36. The expression cassette of claim 35, wherein the nucleic acid has the
2 nucleotide sequence of the nucleic acid encoding TbF15.

1 37. An expression cassette comprising a nucleic acid encoding an
2 HTCC#1 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
3 tuberculosis complex, and a nucleic acid encoding a TbH9 antigen or an immunogenic
4 fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 38. The expression cassette of claim 37, comprising a nucleic acid
2 encoding a full-length HTCC#1 antigen from a *Mycobacterium* species of the tuberculosis
3 complex, and a nucleic acid encoding a full-length TbH9 antigen from a *Mycobacterium*
4 species of the tuberculosis complex.

1 39. The expression cassette of claim 37, comprising a nucleic acid
2 encoding a polypeptide comprising amino acids 184-392 of an HTCC#1 antigen from a
3 *Mycobacterium* species of the tuberculosis complex, a nucleic acid encoding a TbH9 antigen
4 or an immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis
5 complex, and a nucleic acid encoding a polypeptide comprising amino acids 1-129 of an
6 HTCC#1 antigen from a *Mycobacterium* species of the tuberculosis complex.

1 40. The expression cassette of claim 37, wherein the nucleic acid encodes
2 a fusion polypeptide comprising an HTCC#1 antigen or an immunogenic fragment thereof,
3 and a TbH9 antigen or an immunogenic fragment thereof.

1 41. The expression cassette of claim 38, wherein the nucleic acid encodes
2 a fusion polypeptide comprising a full-length HTCC#1 antigen, and a full-length TbH9
3 antigen.

1 42. The expression cassette of claim 39, wherein the nucleic acid encodes
2 a fusion polypeptide comprising amino acids 184-392 of an HTCC#1, a TbH9 antigen or an
3 immunogenic fragment thereof, and amino acids 1-129 of an HTCC#1 antigen.

1 43. The expression cassette of claim 41, wherein the nucleic acid encodes
2 a fusion polypeptide having the amino acid sequence of HTCC#1(FL)-TbH9(FL).

1 44. The expression cassette of claim 43, wherein the nucleic acid has the
2 nucleotide sequence of the nucleic acid encoding HTCC#1(FL)-TbH9(FL).

1 45. The expression cassette of claim 42, wherein the nucleic acid encodes
2 a fusion polypeptide having the amino acid sequence of HTCC#1(184-
3 392)/TbH9/HTCC#1(1-129).

1 46. The expression cassette of claim 45, wherein the nucleic acid has the
2 nucleotide sequence of the nucleic acid encoding HTCC#1(184-392)/TbH9/HTCC#1(1-129).

1 47. An expression cassette comprising a nucleic acid encoding a TbRa12
2 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
3 tuberculosis complex, and a nucleic acid encoding an HTCC#1 antigen or an immunogenic
4 fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 48. The expression cassette of claim 47, wherein the nucleic acid encodes
2 a fusion polypeptide comprising an Ra12 antigen or an immunogenic fragment thereof, and
3 an HTCC#1 antigen or an immunogenic fragment thereof.

1 49. The expression cassette of claim 48, wherein the nucleic acid encodes
2 a fusion polypeptide having the amino acid sequence of TbRa12-HTCC#1.

1 50. The expression cassette of claim 49, wherein the nucleic acid has the
2 nucleotide sequence of the nucleic acid encoding TbRa12-HTCC#1.

1 51. An expression cassette comprising a nucleic acid encoding at least two
2 heterologous antigens from a *Mycobacterium* species of the tuberculosis complex or an
3 immunogenic fragment thereof, wherein the antigen or immunogenic fragment thereof is
4 selected from the group consisting of MTb81, Mo2, TbRa3, 38kD, Tb38-1 (MTb11), FL
5 TbH4, HTCC#1 (Mtb40), TbH9, MTCC#2 (Mtb41), DPEP, DPPD, TbRa35, TbRa12,
6 MTb59, MTb82, Erd14 (Mtb16), FL TbRa35 (Mtb32A), DPV (Mtb8.4), MSL (Mtb9.8), MTI
7 (Mtb9.9A, also known as MTI-A), ESAT-6, α -crystalline, and 85 complex.

1 52. The expression cassette of claim 51, wherein the nucleic acid encodes
2 a fusion polypeptide.

1 53. The expression cassette of claim 29, 33, 37, 47 or 51, further
2 comprising a nucleic acid encoding at least one additional antigen from a *Mycobacterium*
3 species of the tuberculosis complex, wherein the antigen is selected from the group consisting

4 of MTb81, Mo2, TbRa3, 38kD, Tb38-1 (MTb11), FL TbH4, HTCC#1 (Mtb40), TbH9,
5 MTCC#2 (Mtb41), DPEP, DPPD, TbRa35, TbRa12, MTb59, MTb82, Erd14 (Mtb16), FL
6 TbRa35 (Mtb32A), DPV (Mtb8.4), MSL (Mtb9.8), MTI, ESAT-6, α -crystalline, and 85
7 complex, or an immunogenic fragment thereof.

1 54. The expression cassette of claim 29, 33, 37, 47 or 51, further
2 comprising a nucleic acid encoding an NS1 antigen or an antigenic fragment thereof from a
3 *Mycobacterium* species of the tuberculosis complex.

1 55. The expression cassette of claim 29, 33, 37, 47 or 51, wherein the
2 *Mycobacterium* species is *Mycobacterium tuberculosis*.

1 56. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 a pharmaceutical composition comprising an MTb81 antigen or an immunogenic fragment
4 thereof from a *Mycobacterium* species of the tuberculosis complex, and an Mo2 antigen or an
5 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 57. The method of claim 56, wherein the antigens are covalently linked,
2 thereby forming a fusion polypeptide.

1 58. The method of claim 57, wherein the fusion polypeptide has the amino
2 acid sequence of TbF14.

1 59. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 a pharmaceutical composition comprising a ~~TbRa3~~ antigen or an immunogenic fragment
4 thereof from a *Mycobacterium* species of the tuberculosis complex, a 38kD antigen or an
5 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex, a
6 Tb38-1 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
7 tuberculosis complex, and a FL TbH4 antigen or an immunogenic fragment thereof from a
8 *Mycobacterium* species of the tuberculosis complex.

1 60. The method of claim 59, wherein the antigens are covalently linked,
2 thereby forming a fusion polypeptide.

1 61. The method of claim 60, wherein the fusion polypeptide has the amino
2 acid sequence of TbF15.

1 62. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 a pharmaceutical composition comprising an HTCC#1 antigen or an immunogenic fragment
4 thereof from a *Mycobacterium* species of the tuberculosis complex, and a TbH9 antigen or an
5 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 63. The method of claim 62, wherein the pharmaceutical composition
2 comprises a full-length HTCC#1 antigen from a *Mycobacterium* species of the tuberculosis
3 complex, and a full-length TbH9 antigen from a *Mycobacterium* species of the tuberculosis
4 complex.

1 64. The method of claim 63, wherein the antigens are covalently linked,
2 thereby forming a fusion polypeptide.

1 65. The method of claim 64, wherein the fusion polypeptide has the amino
2 acid sequence of HTCC#1(FL)-TbH9(FL).

1 66. The method of claim 62, wherein the pharmaceutical composition
2 comprises a polypeptide comprising amino acids 184-392 of an HTCC#1 antigen from a
3 *Mycobacterium* species of the tuberculosis complex, a TbH9 antigen or an immunogenic
4 fragment thereof from a *Mycobacterium* species of the tuberculosis complex, and a
5 polypeptide comprising amino acids 1-129 of an HTCC#1 antigen from a *Mycobacterium*
6 species of the tuberculosis complex.

1 67. The method of claim 66, wherein the antigens are covalently linked,
2 thereby forming a fusion polypeptide.

1 68. The method of claim 67, wherein the fusion polypeptide has the amino
2 acid sequence of HTCC#1(184-392)/TbH9/HTCC#1(1-129).

1 69. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 a pharmaceutical composition comprising a TbRa12 antigen or an immunogenic fragment

4 thereof from a *Mycobacterium* species of the tuberculosis complex, and an HTCC#1 antigen
5 or an immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis
6 complex.

1 70. The method of claim 69, wherein the antigens are covalently linked,
2 thereby forming a fusion polypeptide.

1 71. The method of claim 70, wherein the fusion polypeptide has the amino
2 acid sequence of TbRa12-HTCC#1.

1 72. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 a pharmaceutical composition comprising at least two heterologous antigens from a
4 *Mycobacterium* species of the tuberculosis complex or an immunogenic fragment thereof,
5 wherein the antigen or immunogenic fragment thereof is selected from the group consisting of
6 MTb81, Mo2, TbRa3, 38kD, Tb38-1 (MTb11), FL TbH4, HTCC#1 (Mtb40), TbH9,
7 MTCC#2 (Mtb41), DPEP, DPPD, TbRa35, TbRa12, MTb59, MTb82, Erd14 (Mtb16), FL
8 TbRa35 (Mtb32A), DPV (Mtb8.4), MSL (Mtb9.8), MTI (Mtb9.9A, also known as MTI-A),
9 ESAT-6, α -crystalline, and 85 complex.

1 73. The method of claim 72, wherein the antigens are covalently linked,
2 thereby forming a fusion protein.

1 74. The method of claim 56, 59, 62, 69, or 72, wherein the mammal has
2 been immunized with BCG.

1 75. The method of claim 56, 59, 62, 69, or 72, wherein the mammal is a
2 human.

1 76. The method of claim 56, 59, 62, 69, or 72, wherein the composition is
2 administered prophylactically.

1 77. The method of claim 56, 59, 62, 69, or 72, wherein the pharmaceutical
2 composition further comprises an adjuvant.

1 78. The method of claim 77, wherein the adjuvant comprises QS21 and
2 MPL.

1 79. The method of claim 77, wherein the adjuvant is selected from the
2 group consisting of AS2, ENHANZYN, MPL, QS21, CWS, TDM, AGP, CPG, Leif, saponin,
3 and saponin mimetics.

1 80. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 an expression cassette comprising a nucleic acid encoding an MTb81 antigen or an
4 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex,
5 and a nucleic acid encoding an Mo2 antigen or an immunogenic fragment thereof from a
6 *Mycobacterium* species of the tuberculosis complex.

1 81. The method of claim 80, wherein the nucleic acid encodes a fusion
2 polypeptide comprising an MTb81 antigen or an immunogenic fragment thereof, and an Mo2
3 antigen or an immunogenic fragment thereof.

1 82. The method of claim 81, wherein the nucleic acid encodes a fusion
2 polypeptide having the amino acid sequence of TbF14.

1 83. The method of claim 82, wherein the nucleic acid has the nucleotide
2 sequence of the nucleic acid encoding TbF14.

1 84. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 an expression cassette comprising a nucleic acid encoding a TbRa3 antigen or an
4 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex, a
5 nucleic acid encoding a 38kD antigen or an immunogenic fragment thereof from a
6 *Mycobacterium* species of the tuberculosis complex, a nucleic acid encoding a Tb38-1
7 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
8 tuberculosis complex, and a nucleic acid encoding a FL TbH4 antigen or an immunogenic
9 fragment thereof from a *Mycobacterium* species of the tuberculosis complex.

1 85. The method of claim 84, wherein the nucleic acid encodes a fusion
2 polypeptide comprising a TbRa3 antigen or an immunogenic fragment thereof, a 38kD
3 antigen or an immunogenic fragment thereof, a Tb38-1 antigen or an immunogenic fragment
4 thereof, and a FL TbH4 antigen or an immunogenic fragment thereof.

1 86. The method of claim 85, wherein the nucleic acid encodes a fusion
2 polypeptide having the amino acid sequence of TbF15.

1 87. The method of claim 86, wherein the nucleic acid has the nucleotide
2 sequence of the nucleic acid encoding TbF15.

1 88. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 an expression cassette comprising a nucleic acid encoding an HTCC#1 antigen or an
4 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex,
5 and a nucleic acid encoding a TbH9 antigen or an immunogenic fragment thereof from a
6 *Mycobacterium* species of the tuberculosis complex.

1 89. The method of claim 88, wherein the nucleic acid encodes a fusion
2 polypeptide comprising an HTCC#1 antigen or an immunogenic fragment thereof, and a
3 TbH9 antigen or an immunogenic fragment thereof.

1 90. The method of claim 89, wherein the nucleic acid encodes a fusion
2 polypeptide comprising a full-length HTCC#1 antigen or an immunogenic fragment thereof,
3 and a full-length TbH9 antigen or an immunogenic fragment thereof.

1 91. The method of claim 90, wherein the nucleic acid encodes a fusion
2 polypeptide having the amino acid sequence of HTCC#1(FL)-TbH9(FL).

1 92. The method of claim 91, wherein the nucleic acid has the nucleotide
2 sequence of the nucleic acid encoding HTCC#1(FL)-TbH9(FL).

1 93. The method of claim 89, wherein the nucleic acid encodes a fusion
2 polypeptide comprising a polypeptide comprising amino acids 184-392 of an HTCC#1
3 antigen, a TbH9 antigen or an immunogenic fragment thereof, and a polypeptide comprising
4 amino acids 1-129 of an HTCC#1 antigen.

1 94. The method of claim 93, wherein the nucleic acid encodes a fusion
2 polypeptide having the amino acid sequence of HTCC#1(184-392)/TbH9/HTCC#1(1-129).

1 95. The method of claim 93, wherein the nucleic acid has the nucleotide
2 sequence of the nucleic acid encoding HTCC#1(184-392)/TbH9/HTCC#1(1-129).

1 96. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 an expression cassette comprising a nucleic acid encoding a TbRa12 antigen or an
4 immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis complex,
5 and a nucleic acid encoding an HTCC#1 antigen or an immunogenic fragment thereof from a
6 *Mycobacterium* species of the tuberculosis complex.

1 97. The method of claim 96, wherein the nucleic acid encodes a fusion
2 polypeptide comprising a TbRa12 antigen or an immunogenic fragment thereof, and an
3 HTCC#1 antigen or an immunogenic fragment thereof.

1 98. The method of claim 97, wherein the nucleic acid encodes a fusion
2 polypeptide having the amino acid sequence of TbRa12-HTCC#1.

1 99. The method of claim 98, wherein the nucleic acid has the nucleotide
2 sequence of the nucleic acid encoding TbRa12-HTCC#1.

1 100. A method for eliciting an immune response in a mammal, the method
2 comprising the step of administering to the mammal an immunologically effective amount of
3 an expression cassette comprising a nucleic acid encoding at least two heterologous antigens
4 from a *Mycobacterium* species of the tuberculosis complex or an immunogenic fragment
5 thereof, wherein the antigen or immunogenic fragment thereof is selected from the group
6 consisting of MTb81, Mo2, TbRa3, 38kD, Tb38-1 (MTb11), FL TbH4, HTCC#1 (MtB40),
7 TbH9, MTCC#2 (MtB41), DPEP, DPPD, TbRa35, TbRa12, MTb59, MTb82, Erd14 (MtB16),
8 FL TbRa35 (MtB32A), DPV (MtB8.4), MSL (MtB9.8), MTI (MtB9.9A, also known as MTI-
9 A), ESAT-6, α -crystalline, and 85 complex.

1 101. . The method of claim 100, wherein the nucleic acid encodes a fusion
2 polypeptide.

1 102. The method of claim 80, 84, 88, 96, or 100, wherein the mammal has
2 been immunized with BCG.

1 103. The method of claim 80, 84, 88, 96, or 100, wherein the mammal is a
2 human.

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104. The method of claim 80, 84, 88, 96, or 100, wherein the composition is
administered prophylactically.

105. A fusion protein comprising an MTb81 antigen or an immunogenic
fragment thereof from a *Mycobacterium* species of the tuberculosis complex, and an Mo2
antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
tuberculosis complex.

106. The protein of claim 105, wherein the fusion polypeptide has the
amino acid sequence of TbF14.

107. A fusion protein comprising a TbRa3 antigen or an immunogenic
fragment thereof from a *Mycobacterium* species of the tuberculosis complex, a 38kD antigen
or an immunogenic fragment thereof from a *Mycobacterium* species of the tuberculosis
complex, a Tb38-1 antigen or an immunogenic fragment thereof from a *Mycobacterium*
species of the tuberculosis complex, and a FL TbH4 antigen or an immunogenic fragment
thereof from a *Mycobacterium* species of the tuberculosis complex.

108. The protein of claim 107, wherein the fusion polypeptide has the
amino acid sequence of TbF15.

109. A fusion protein comprising an HTCC#1 antigen or an immunogenic
fragment thereof from a *Mycobacterium* species of the tuberculosis complex, and a TbH9
antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
tuberculosis complex.

110. The protein of claim 109, comprising a full-length HTCC#1 antigen
from a *Mycobacterium* species of the tuberculosis complex, and a full-length TbH9 antigen
from a *Mycobacterium* species of the tuberculosis complex.

111. The protein of claim 110, wherein the fusion polypeptide has the
amino acid sequence of HTCC#1(FL)-TbH9(FL).

112. The protein of claim 109, comprising a polypeptide comprising amino
acids 184-392 of an HTCC#1 antigen from a *Mycobacterium* species of the tuberculosis
complex, a TbH9 antigen or an immunogenic fragment thereof from a *Mycobacterium*

4 species of the tuberculosis complex, and a polypeptide comprising amino acids 1-129 of an
5 HTCC#1 antigen from a *Mycobacterium* species of the tuberculosis complex.

1 113. The protein of claim 112, wherein the fusion polypeptide has the
2 amino acid sequence of HTCC#1(184-392)/TbH9/HTCC#1(1-129).

1 114. A fusion protein comprising a TbRa12 antigen or an immunogenic
2 fragment thereof from a *Mycobacterium* species of the tuberculosis complex, and an
3 HTCC#1 antigen or an immunogenic fragment thereof from a *Mycobacterium* species of the
4 tuberculosis complex.

1 115. The protein of claim 114, wherein the fusion polypeptide has the
2 amino acid sequence of TbRa12-HTCC#1.